ABSTRACT

A lithographic projection apparatus includes, a radiation source for providing a projection beam of radiation, a support structure for supporting a patterning device, the patterning device serving to pattern the projection beam according to a desired pattern, a substrate table for holding a substrate, a projection system for projecting the patterned beam onto a target portion of the substrate, the radiation source further includes, an illumination system for conditioning the beam of radiation so as to provide a conditioned radiation beam so as to be able to illuminate the patterning device; the illumination system defining a plane of entrance wherein the radiation beam enters the illumination system, and a beam delivery system comprising redirecting elements for redirecting and delivering the projection beam from a radiation source to the illumination system. The beam delivery system includes an imaging system for imaging the radiation beam from an object plane located at a distance from the plane of entrance to an image plane located near or at the plane of entrance. In this way the influence of laser pointing drift on both beam position and pointing drift at the entrance is highly decreased.